

TEACHING INNOVATION IN 21ST CENTURY EDUCATION BY INCREASING LINGUISTIC INTELLIGENCE AT THE FIFTH YEARS STUDENTS OF ELEMENTARY STUDENTS THROUGH THE APPLICATION OF QUANTUM TEACHING METHOD

Marsitah

Universitas Ahmad Dahlan, Yogyakarta, Indonesia
marsitahfaerojana@gmail.com

Abstract: In 21st century education English become the important lesson for all students actually in elementary school. Therefore, as a teacher we should do something innovation for our students. In learning English, most of students find difficulties and easily bored. As a teacher, we also should try to motivate the students in learning English. In quantum teaching method, the teacher can show how to orchestrate their students success by taking into account everything in the classroom along with the environment. The research population in this study is the fifth grade students of SD N 2 Karangduwur, Ayah, Kebumen. Since the fifth grade students of SD N 2 Karangduwur have 19 students, the writer takes all of the students as a sample. To collect the data there are some were analyzed using quantitative analysis by descriptive analysis in the form of percentage. The result of research is shown that teaching – learning English through the application of quantum teaching method can increase students’ linguistic intelligence from initial activity 57.63% into 62.76% in activity I and the last in activity II 74,74%. On the other hand, using quantum teaching method also can increase students’ learning result from initial average 60.53, in activity I change into 61.84 and 72.63 in activity II.

Keywords: *Inovation, Teaching - Learning, Intelligence, Quantum teaching method.*

1. Introduction

The mastery of science and technology should be improved in order that the people can anticipate development. Language is all-pervasive in our lives and is that of communication (Loorand, 1955: 1). It means that language is the most effective media that can adopt the human's will including expressing human's feeling. Thus, education is set up to prepare people with knowledge and skill to face the competitive world. English is a key which opens many kinds of vast areas of the world. English plays an important role on the communication about variety of information of the world. The important role of English becomes the reason why English has to be taught in elementary school i. e. Based on the decree No 306/ 103a/ 1995. English in Elementary School functions as a local content (*muatan lokal*). It means that English can be taught in any school where their societies feel able to teach English.

In accordance with the importance of English learning mentioned above the Ministry of Education Decree No 23/ 2006 about standardization of graduate competence for Elementary School until Senior High School state that such a curriculum called KTSP starts to academic year of 2006/2007. Competency is a knowledge, skills and abilities or capabilities that a person achieves, which become part of his or her being to the extent he or she can satisfactorily perform particular cognitive, affective, and psychomotor behaviors (E. Mulyana, 2002: 38)

To realize what is started in the Ministry of Education Decree No 306/ 103. a/ 1995. The English functioning as a local content (*muatan lokal*) of Elementary School (SD) gives priority to increase linguistic intelligence hoped that Elementary School graduates who have learned English for three years will be able to spell words well and be sensitive towards language patterns, or they are good at reading and writing.

In this case, the researcher thought the application of quantum teaching method in English learning is to know the increase of linguistic intelligence at Elementary School. Quantum teaching principle " is to bring their world to our and take our world to theirs". As a teacher and we will know how to make student interested in English learning and can improve their linguistic intelligence much better.

In fact, the students of Elementary School need motivation to accomplish their study. In learning English, most of the students find difficulties and easily get bored. As a teacher, we should try to motivate the students in learning English. In *quantum teaching method*, the teacher can show how to orchestrate their students success by taking into account everything in the classroom along with the environment. The writer chooses increasing linguistic intelligence through the application of the *quantum teaching method* because the writer thinks that by increasing linguistic intelligence, it will improve how to spell words well and sensitive towards language patterns of the students learning.

In this paper, the writer limits the study of the research just on the increasing linguistic intelligence through the application of quantum teaching method in English learning by the fifth years students of Karangduwur State Elementary School 2 Ayah, Kebumen. The objectives of this research is to describe the increase of students linguistic intelligence through the application of quantum teaching method in English learning.

2. Literature Review

1) Innovation

There are so many experts who provide definitions or understanding of innovation, and all of them provide an understanding of various innovations from each source and expert, and all complement and strengthen each other in providing an understanding of what innovation is, here are some definitions or definitions of the innovation:

- a. Innovation is the creation of something that improves the way we live our lives (Barack Obama, 2007).
- b. an Innovation is an idea for accomplishing some recognize social end in a new way or for a means of accomplishing some new social (Donald P. Ely, 1982, Seminar an Educational Change).
- c. Innovation is the creation of the new or the re-arranging of the old in a new way (Michael Vance).

- d. Technically, “innovation” is defined merely as “introducing something new;” there are no qualifiers of how ground-breaking or world-shattering that something needs to be—only that it needs to be better than what was there before. And that’s where the trouble starts when an organization requests “innovation services” from a consulting firm.
- e. Innovation: The process of creating a product or service solution that delivers significant new customer value. The process begins with the selection of the customer and market, includes the identification and prioritization of opportunities, and ends with the creation of an innovative product or service (Anthony W. Ulwick).

The definition given by experts and sources above can be concluded from the notion of innovation, the categories of innovation include:

- a. Something new, original, fresh idea, discovery or change of improvement. This 'something' can be in the form of a process, production, service or service, a business model, and can be started from someone's small thoughts or ideas that appear suddenly.
- b. Creativity is even developed from each individual or group of organizations so as to produce something new and ideas that are fresh and original.
- c. Provide solutions to existing problems or new breakthroughs in new ways that are more effective and efficient
- d. Providing value and benefits to the organization or individual, so that something new can be used and generate benefits in terms of material, time, security

The quality of education in Indonesia is getting better and better. This is marked by an increase in the basic abilities of students in solving the problems they face. We often see in terms of the lack of students and rarely see in terms of excellence achieved by students.

But we should to know that the demands of the times are increasingly global as well, such as 21st century learning education. Therefore we must prepare our students to face the challenges now and in the future. Students should be able to compete in the global market and be able to face 21st century education, where the flow of information is increasingly complex and competition comes from various directions, both from within the country and from abroad. One thing that should not be bargained is the ability to communicate with international languages, namely English.

In the learning process, we must not only use conventional learning models, where in the learning process places the teacher as the main source of learning. As teachers we must also be able to become innovative teachers, involve students in learning and use learning resources in the learning process in various directions, such as books, journals taken from magazines or from the internet, CDs designed for learning, the local environment, and many other sources that can be used in the learning process. In the learning process it is more to place the teacher as a facilitator, namely the person who provides facilities to students to learn. However, teachers remain as resource persons, directors and decision makers. So that the classroom situation remains controlled and enjoyable both for students and for the teacher himself.

2) Teaching and Learning

a. Definition of Teaching

Talking about teaching, which assumes as a duty a teacher in transferring the knowlegde to the studentd is not false. However, teaching is more than that. Many experts stated about the definition of teaching below:

Aunurrahman (2009: 34) states that teaching is condition or an activity to create a situation which can motivate the students to learn. According to Dimiyati (2006: 47), Teaching is an activity to form a habit and to carry out some repetitive action so that it goes habitually. Sanjaya (2007: 96) says that teaching is imparting knowledge or skill. While Alwasilah (2008: 19) says that teaching is a reflection of teachers personality system, which proffessionally takes tpeps.

Form defination above, the writer concludes that teaching is giving, helping, guiding, and showing something for somebody to be able to do it themselves. It will bring somebody to provide their knowledgw and habitual.

b. Definiton of Learning

There are many definition of learning formulated by many experts. The definition may be different but the basic essence implies the similarity. According to Dimiyati (2006: 7) learning is the students complex action and behavior. Skinner as quoted by dimiyanti (2006: 9) says that learning is behavior. Gagne as quotes by dimiyanti (2006: 10) says tha learning is a set of cognitive process which changes the chatacteristic of enviroment stimulation through information processing and become a capability at last. Whittaker as quoted by aunurrahman (2009: 35) states that learning is a process, carriied out by an individual to get an overall new behavior change. Alwasilah (2008 : 19) states that learning is a reflection of students personality system, showing a behavior that coneccting the assigment given. According to Daniel and David (2008 : 20), learning is a thing, carried out by people to respond external stimulus. While Sanjaya (2007: 112) says that laearning is a the process by which an activity originates or changed through training procedures wether in the laboratory or in the natural envoronment.

From those source, the writer concludes that learning is a process to get something new and something better, in case achievment. Through learning, we do not only study textual term but we also bring it into practice.

3) Intteligence

a. Definition of Intelligence

Talking about intellingence there are some definition about intelligence as follows. According to Thomas (2007:11) an intelligence is a competence to troubleshoot a problem or to create priceless thing an in part. Djaali (2007: 64) states that an intelligence is an ability to adapt/adjust with new situation by new thinking equipments based on the purpose. Thorndike as quoted by Djaali (2007: 64) states that an intelligence is a demonstrable in ability of individual to make good responses from the stand point of tuth or fact. Robert as qouted Djaali (2007 : 65) states that an intelligence is capacity to learn from experience and the ability to adapt to the surrounding environment. Hamzah (2005 : 59) states that an intelligence is an ability to comprehend the word, to think rationally and to use some sources affectively when dealt with a challange. According to Alwasilah (2008: 250) an intelligence is an ability for troubleshooting.

Fron definition above, the writer concludes that an intelligence is an accuracy to determine a chance rationally and an ability to think greatly when its dealt with new challanges in a real life.

According to Hamzah (2005: 60) an intelligence consist of three main components, are follows:

a) An ability to direct the thought and the action.

Teaching Learning Process

According to Richard (2008: 28) teaching- learning process is a whole life and development process which are unlimited between the first learning period focused on some teaching methods amd reached teaching license period.

While pieget as qouted by Dimiyanti (2006: 14) states that teaching- learning process consist of fors step to do, as follows:

- Determining a topic / a Plan

A topic that will be learned, can be determined by the students throughthe teachers guidance and question. For example: which topic is proper for problem solving in the context of group?

- Application/ Class Activity

The next step is to choose or to develop a classactivity based on the chosen topic.

- Giving Question

In this session, a teacher has more chance to give some question, supporting the problem solving. Such questions are aimed to stimulate the students to think, for example: through a question, beginning with “ how if “

- Assesment

The teacher assesses the implementation of each activity, notices the achievement and carries out a revision.

- b) An ability to change the direction of an action when its already been carried out.
- c) An ability to change ourselves

While to Djaali (2007: 74) the intelligence of one and the others is different. There are some factors, which influence intelligence level, such as:

- Natural intelligence, in which this is determined by some natural characteristic
- Motivation and exclusive character, where the motivation will aim an action on a purpose.

b. Multiple intelligence

Theories of intelligence can be divided into those based on unilinear construct of general intelligence and those based on multiple intelligence. According to Gardner as quoted by Daniel and David (2008: 30) initially formulated a list of seven intelligences. The definition of seven intelligences are follows :

- a) Spatial intelligence
It involves the potential to recognize and use the pattern of wide space and more confined areas.
- b) Linguistic intelligence
Involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself rhetorically, poetically, and language as a means to remember information. Writers, poets, lawyers, and speakers are among those that Gardner sees as high linguistic intelligence.
- c) Logical- mathematical Intelligence
It consists of the capacity to analyze problems logically to carry out mathematical operations and to investigate issues scientifically. In Gardner's words, it entails the ability to detect pattern, reason deductively, and think logically. This intelligence is most often associated with scientific and mathematical thinking.
- d) Bodily- kinesthetic intelligence
Entails the potential of using one's whole body to solve problems. It is the ability to use mental abilities to coordinate bodily movements. Gardner sees mental and physical activity as related.
- e) Musical Intelligence
Involves skill in the performance, composition, and appreciation of musical pattern. It encompasses the capacity to recognize and compose musical pitches, tones, and rhythms. According to Gardner musical intelligence runs in an almost structural parallel to linguistic intelligence.
- f) Interpersonal Intelligence
It is concerned with the capacity to understand the intentions motivations and desires of other people. It allows people to work effectively with other. Educators, religious and political leaders, and counsellors all need a well- developed interpersonal intelligence.
- g) Intrapersonal Intelligence
It entails the capacity to understand oneself, to appreciate one's feeling, fears, and motivations. In Gardner's view it involves having an affective working model of ourselves, and to be able to use such information to regulate our lives.

c. Linguistic intelligence

Linguistic intelligence is basically (as the name suggest) the intelligence of language and communication. This includes the ability to speak, articulate, and express or convey one's thoughts and feelings to the outside world. (<http://library.Thinquest.org/28237/linguistic.Htm>)

Linguistic intelligence is the capacity to use language, your native language, and perhaps other languages to express what's on your mind and to understand other people. (<http://www.wilywalnut.com/linguisticintelligence.Htm>)

Based on definition above, the writer concludes that linguistic intelligence manifests itself in term of linguistic abilities possessed by the intelligent view. Linguistically intelligent people like to read and write. They are good with spelling words and sensitive towards language patterns.

Linguistic intelligence is defined as having the following criteria as follows:

- a) A deep understanding of words and sensitivity to the literal and figurative meaning of words.
- b) Highly developed oral and written communication skill.
- c) Sensitivity to the musical qualities and rhythms words.
- d) Knowledge to the different language, such as information, persuasion or pleasure.
- e) Poets, writers, and public speakers are examples of linguistically intelligent people.

Table 1

Linguistic intelligence traits	
a. Like to read b. Like to wrote c. Like to listen d. Good spelling e. Sensitive to pattern f. Like words game	g. Good memory for general knowledge h. Orderly and systematic i. Ability to reason j. Good public speaker/ debator though may prefer either oral or written communication

(<http://hmt.myweb.uga.edu/webwrite/linguistic.Htm>)

d. Quantum Teaching Method

According to Deporter (2007: 5) quantum is an interaction to change the energy to the light. In Lozardo as quoted by Deporter (2007: 3) quantum teaching is composing process of merry learning with all its atmosphere. While Deporter (2007: 6) states that quantum teaching is a composing process of varied interaction inside and around the learning process.

From definition above, the writer concludes that quantum teaching method is a happy learning process which can encourage a motivation merrily and effectively so that students can easily understand the teacher's material.

According to Deporter (2007: 6), quantum teaching principle is "to bring their world to ours and to take our worlds theirs". Deporter (2007: 7) states that quantum teaching embodies five tenets, as follows:

- a) Everything Speak
It includes classroom environment, body language design of lesson and handouts.
- b) Everything is on Purpose
As a teacher he or she must carefully orchestrate their lesson.
- c) Experience Before Label
Learning happens best, when students experience the information at the outset of learning.
- d) Acknowledge Every Effort
Students take risk and build their competence and confidence.
- e) If It's Worth Learning
It's worth celebrating, with appropriate feedback that increases positive emotional association with the learning.

Deporter (2007: 10) shows that learning motivation can be applied to a design, well-known as TANDUR /IBNDRC:

- a) Implant
Implant the students learning motivation
- b) Be Natural
Make a general experience / story, understood by the students.
- c) Name
Provide some keywords, patterns and learning strategy.
- d) Demonstrate
Provide the chance for the students that do know.
- e) Repeat
Shows the students the ways to repeat the material and to confirm.

f) Celebrate

An acknowledgement for an accomplishment, an evaluation and knowledge gain.

Deporter (2007: 183) says that in quantum reading, we can use our brain to capture some words all in. We can train it through the following five steps, as follows:

a) Be a Curious Learner

Before we begin doing some assignments on reading, ask your self "what advantages will I take".

b) Enter the Situation of Centered Concentration.

Reading fast demands a high concentration.

c) Superscan

Superscan is the fastest reading way.

d) Reading

When we begin reading, follow the line by line using our finger, force us to read a bit faster than usual. Most people read the words one by one. Left brain emphasizes to focus on certain parts. The main purpose as quantum reader is to read all word constructions by using right brain, a part for overall comprehension.

e) Repetition

Make a thought map for the things, we have just read. Repeat it for several times, for it will fix the learning in our memory and enhance the comprehension towards the material.

e. Elementary School

a) The definition

An elementary school is an institution where children receive their first stage of compulsory education known as elementary or primary education (<http://Wikipedia.org/wiki/elementaryschool>)

b) English for Elementary School

English for elementary school is English which is given in elementary school as a subject to be learned by student. The category of the subject of the local content curriculum is English. Consequently, it is not compulsory subject for an elementary as one subject to be taught. The subject is proposed to introduce English to the students of elementary school as the first foreign language to learn.

More specifically, English for elementary school is proposed to give motivation to the students, so that they will be ready and have good self-confidence in studying English at their next process of study (Depag, 1997: 1)

The students of elementary school are in the age of seven to twelve years. When they are introduced to a foreign language, they may find some similarities and differences between learning their mother tongue and learning the foreign language. One of the differences is that the native language is used as a means of communication at home, school and in the society, while the foreign language is not practiced as a means of communication.

In addition, the students themselves do not yet realize the benefit of learning English. They think that English is horrible and difficult subject so that learning English becomes not interesting and tend to be ignored.

These phenomena will be occurred continually if there is no way out to solve the problem. Therefore, the materials should be based on the students age, ability, and their experiences.

c) The ways for the Teacher to Help the Learners

According to Slattery (2003: 4) after the teacher knows about the students as learners. These, there are some ways for the teacher to help the learners.

1. Make learning English enjoyable and fun, remember that the teacher influences their attitude to language learning.
2. Don't worry about mistakes, be encouraging. Make sure children feel comfortable, and not be afraid to take a part.
3. Use a lot of gestures, actions and pictures to demonstrate what teacher means.
4. Talk a lot to them in English, especially about things they can see.
5. Play games, sing songs, say rhymes and chants together.
6. Tell simple stories in English, using pictures and acting with different voices.

7. Don't worry when learners use their mother tongue.
8. The teacher can answer a mother tongue question in English, and sometimes recast in English what they say in their mother tongue.
9. Recycle new language but don't be afraid to add new things or to use words learners won't know.
10. Plan lessons with varied activities, some quiet, some noisy, some sitting, some standing and moving.

f. Psychology of Children

The word "psychology", from the Greek *psyche*, meaning mind or soul. Describes an academic and clinical subject concerned with person and emotion, conscious and unconscious mental processes.

Psychology is the science dealing with the mind and the mental processes, especially in relation to human and animal behavior. (<http://www.Medterms.com/script/main/art.htm>)

The study of age-related changes in behavior from birth to death. Developmental psychologists attempt to determine the causes of such changes. Most research has concentrated on the development of children, but there is increasing interest in the elderly, and to a lesser extent in other age groups. Although most developmental work examines humans, there has been some work on primates and other species that would be considered unethical with human beings.

Developmental psychologists who study children rely more upon careful observation in natural settings than upon laboratory experiments. Under these circumstances, only partial conclusions can be drawn about the causes of development. The field has been dominated by descriptive research, with increasing attempts to explain developmental phenomena by the use of animal experiments or by statistical methods.

Developmental psychology is divided roughly between those who study personal social (emotional) development and those who study intellectual and linguistic development. Although there is a small but growing interest in the overlap between these two aspects or personality known as social cognition.

Developmental psychology also known as human development, is the scientific study or systematic psychological changes that occur in human beings over the course of the life span. Originally concerned with infants and children, the field has expanded to include adolescence, adult development and the entire life span. Developmental psychology includes issues such as the extent to which development occurs through the gradual accumulation of knowledge versus stage-like development.

Child is a person under the age of 18 years. Children is a young human. Depending on context it may mean someone who is not yet an adult or someone who has not yet reached puberty. (<http://www.Wonrdiq.com/definicion/children>)

Child psychology is the study of the mental, emotional, and behavioral development of infants or children. (<http://medical-dictionary.thefreedictionary.com/child/psychology>)

Child psychology is associated with the social and personal development of children and a child goes through several stages before stepping into the adult world.

Child psychology is one of the many branches of psychology and one of the most frequently studied specialty areas. The particular branch focuses on the mind and behavior of children from prenatal development through adolescence. Child psychology deals not only with how children grow physically, but with their mental, emotional, and social development as well.

A female child is called a girl and a male child is a boy, this is a distinction of biological sex. Many psychological disorders first diagnosed in children involve psychological and/or genetic components. However, there are many other psychological disorders found in children without any physical causes. Disorders caused by psychological or biological problems are more likely to be identified early in life.

As the name suggest, at psychology for children, our primary focus is on what goes on in the minds and hearts of children. How to develop, how they get on with their family and friends, how they handle school and the process of learning and what problems they may encounter along the way.

Historically, children were often viewed simply as smaller versions of adults. When Jean Piaget suggested that children actually think differently than adults. Albert Einstein proclaimed that the discovery was “so simple that only a genius could have thought of it”

Today, psychologists recognize that child psychology is unique and complex, but many differ in terms of the unique perspective they take when approaching development. Experts also differ in their responses to some of the bigger questions in child psychology, such as whether early experiences matter more than later ones whether nature or nurture plays a greater role certain aspects of development.

For the better part of history, psychological disorders were presumed to be a province of the adult mind. However, according to the mental health channel since the 1960s, research has shown that children are vulnerable to the same psychological problems as adults. In fact, according to five American children and adolescents may have a psychological disorder. Furthermore, statistics suggest that two-thirds of these young people are probably not qualified help are the first two vitally important steps in putting our child on the road to healthy and happy future.

3. Material and Methodology

a. Data

In this research, there are three kinds of collecting the data:

1. Observation

In this method the writer chooses direct observation about all of event or that event happened along teaching learning process. From this observation we can see the activity and students linguistic intelligence in teaching learning process.

2. Test

The writer holds the test after teaching- learning process that used quantum teaching method, we can called post-test. The score gained by the students is the total items of correct answers divided by whole items multiplied by 100 (Depdiknas, 2008: 87) as quoted by Titin Sumarni (2009: 23)

3. Questionnaire

Questionnaire can used to express students linguistic intelligence in learning. This method can also see the sincerity and spirit all of students when they follow teaching learning process. We know the response from students, feeling happy and exactly with quantum teaching method that used from teacher.

b. Method

The writer will explain the way how the research is conducted. In conducting the research, method is very important. It has a very important role to make the concept of planning as guidance of the research. According to Arikunto (2006: 160) method is the way how a researcher collects the data.

Type of this research is Classroom Action Research (CAR). According to Dick (1991: 2) classroom research is a research that concentrates on the inputs to the classroom (the teaching materials, the syllabus, etc) or on the outputs from the classroom (learner test scores). While Arikunto (2007: 3) says that classroom action research is a closely intentional that appeared and happened at the same time in the classroom.

This research has the characteristic to study the situational classroom also make students easy to accept and understands the material. Moreover, the researcher must study situational problem and contextual of choosing exactly way for problem solving.

c. Table and Figure

Table 2. The Level of Research Result

No	The Level of Research Result (%)	Level
1.	81.26 – 100.00	Very high
2.	61.51 – 81.25	High
3.	43.76 – 61.50	Low
4.	25.00 – 43.75	Very low

(The Data Main Research (2006) as quoted BY Supriyanto)

Table 3. Scoring Guideline of the Student's Linguistic Intelligence Observation

Alternative Answer	Score
Always	4
Often	3
Sometimes	2
Never	1

Table 4. A Blueprint of Student's Linguistic Intelligence Observation

Measured Aspect	Indicator	The sum of Item	Number of Item
An ability to communicate fluently and correctly	The students can speak by using their own words.	2	1,3
An ability to direct the thought / the action	The students are able to follow the learning process seriously	4	5,6,7,8
An independency in learning process	The students are able to do teacher's assignment.	2	4,9
Respecting ourselves	The students can respect themselves that their works are correct, and so are the answer.	2	2,10
He Sum		10	10

Table 5 The Scoring of Student's Linguistic Intelligence in English Learning by Using Quantum Teaching Method

Alternative Answer	Score	
	Positive Statement	Negative Statement
Always	4	1
Often	3	2
Sometimes	2	3
Never	1	4

Table 6. A Blueprint of Student's Linguistic Intelligence Towards English Learning by Using Quantum Teaching Method

No	Indicator	The Sum of Item	Kinds of Statements	
			Positive	Negative
1.	Respecting Ourselves	3	2,5,6	
2.	An ability to	2	3,7	
3.	Communicate Fluently A bravery to admit mistakes	1		9
4.	An ability to accept a challenge	4	1,4,10	8
	The Sum	10	8	2

Table 7. The Scoring of Student's Perception Towards English Learning Process by Using Quantum Teaching Method

Alternative Answer	Score	
	Positive Statement	Negative Statement
Always	4	1
Often	3	2
Sometimes	2	3
Never	1	4

Table 8. A blueprint of Questionnaire About Student's Perception Towards English Learning Process by Using Quantum Teaching Method

No	Indicator The Sum of Item		Kinds of Statements	
			Positive	Negative
1.	The elements of awareness	5	2,4,5,7	9
2.	The elements of pleasures	3	1,3	10
3.	The elements of willingness	2	6	8
	The Sum	10	7	3

d. Equations and Mathematical Expression

The writer chooses action classroom research, because she has the purpose to increase the form of learning. So, technique of data analysis descriptive with percentage technique in quantitative analysis.

Recorded events and the data will be presented in a table. The activity of students learning process will be analyzed by comparing the first activity and the second activity. The calculation percentage employs descriptive (P) (D) formulation (Ali: 1989: 184) as quoted by Agus Supriyadi (2008)

$$DP = \frac{n}{N} \times 100\%$$

Explanation : n : total respondents answer score
N : total whole ideal scores
DP : success level achieved

4. Result and Discussion

a. Result

The writer present the result of the research and its data analysis. The writer collects the data from students the data from 19 students of SD Negeri 2 Karangduwur-Ayah-Kebumen. The writer presents the students name of SD Negeri 2 Karangduwur-Ayah-Kebumen as follows:

Table 9. Student's Name

No	Name of Students	Student's Number
1.	Sumaryo	1058
2.	DhimasAjiPangestu	1060
3.	TitisPuspawati	1072
4.	RiskaAfriani	1073
5.	Erna Sari Latifah	1074
6.	DwiAsih Pertiwi	1075
7.	Ali Syaefudin	1076
8.	Diki Fernando	1077
9.	Evi Maharani	1078
10.	FrediKurnia	1079
11.	NuniSudaryatibarokah	1080
12.	Mefilestari	1082
13.	AyuVijavimuti	1083
14.	Dimas Kurniawan	1084
15.	ReszaRiskianto	1085
16.	IntanChoerunisa<S	1088
17.	ResaGianFausta	1089
18.	Mas AnggoroTriatmojo	1090
19.	Triyono	1120

Data Presentation

Data in this study difinitely consist of observation score of students linguistic intillegence, questionnaire score of students linguistic intelligence and students perception toward english over quantum teaching learning and test score during english learning through the application of quantum teaching method. The data description can be explained as follows :

a) Obsevation of the students intelligence

The instrument employed in observation of students linguistic intelligence is in the form of observation sheets which comprise inter observer assessments. There are two observers, the researcher and english teacher in karangduwur state elementary school 2. The assessments performed by giving chekclist signs on prepared instruments. The researcher gets an average for each activity from total score which is divided into total students. It is 876 which is divided into 19 is 46.11 in initial activity. In activity 1954 is divided into 19 which is 50.21 and the last in activity 11.1136 which is divided into 19 is 59.79.

The researcher also gets devenation standard (SD). It is 6.51 in initial activity. In activity I is 6.07 and the last in activity II 5.84. these results explain that in each activity Devenation Standard gets discharged result. It is competely presented in the form of apendix. The students intelligence score in english learning is presented in the form of table if normal reference is employed.

Table 10. Recapitulation of Observation Result of Student's Linguistic Intelligence

Parameter	Activity		
	Initial data	Activity I	Activity II
Total	876	954	1136
\bar{X}	46.11	50.21	59.79
SD	6.51	6.07	5.84

b) Questionnaire of students linguistic intelligence

This questionnaire aims to find out the students linguistic intelligence in english learning. It comprises 10 items of of question with 4 alternatives answers. The researcher gets an average for each activity from total score divided into total students. In activity I, 483 divided into 19 is 25.42 in activity II, 542 divide into 19 is 28.53.

The researcher also gets an Devenation Standard (SD). In activity I is 2.60 and the last in activity II is 1.60. these results explain that in each activity devination standard gets discharged result. It is competely presented in the form of apendix. The students intelligence score in english learning is presented in the form of table if normal reference is employed.

Table 11. Recapitulation Questionnaire Score Student'a Linguistic Intelligence

Parameter	Activity	
	Activity I	Activity II
Total	483	542
\bar{X}	25.42	28.53
SD	2.60	1.60

c) Questionnaire of Students Perception Toward English Learning Process by Using Quantum Teaching Method.

This questionnaire strives to find out students perception or respond over english learning through the application of quantum teaching method . it consist of 10 items of qestion withn 4 alternative answers. The questionnaire results in total score of 548 on the average of 28.84 and the devenation standard (SD) is 3.10. this questionnaire score is completely presented in the form of apendix.

d) Students Learning Result

Learning result is gained from daily excersises which consist of discussion question in the form of multiple choices. The test items are developed by referring to KTSP assessment system. The total test is 20 items in activity I and II. It is completely presented in the form of apendix. The score of student learning through the application of quantum teaching method is presented in the form of table if normal reference is employed.

Table 12. Recapitulation of Test Score Before the Study, Final Activity I and II

Parameter	Activity		
	Initial data	Activity I	Activity II
Total	1150	1175	1380
\bar{X}	60.53	61.84	72.63
SD	7.53	7.4	5.70

Table 13. Student's Learning Results

Student's learning results depending on the numbers of students	
Activity I	Activity II
Score : $\frac{B}{N} \times 100$	Score : $\frac{B}{N} \times 100$
N	N
1. $\frac{12}{20} \times 100 = 60$	1. $\frac{15}{20} \times 100 = 75$
2. $\frac{12}{20} \times 100 = 60$	2. $\frac{14}{20} \times 100 = 70$
3. $\frac{13}{20} \times 100 = 65$	3. $\frac{15}{20} \times 100 = 75$
4. $\frac{12}{20} \times 100 = 60$	4. $\frac{15}{20} \times 100 = 75$
5. $\frac{13}{20} \times 100 = 65$	5. $\frac{14}{20} \times 100 = 70$
6. $\frac{15}{20} \times 100 = 75$	6. $\frac{17}{20} \times 100 = 85$
7. $\frac{10}{20} \times 100 = 50$	7. $\frac{13}{20} \times 100 = 65$
8. $\frac{13}{20} \times 100 = 65$	8. $\frac{14}{20} \times 100 = 70$
9. $\frac{15}{20} \times 100 = 75$	9. $\frac{16}{20} \times 100 = 80$
10. $\frac{11}{20} \times 100 = 55$	10. $\frac{14}{20} \times 100 = 70$
11. $\frac{14}{20} \times 100 = 70$	11. $\frac{15}{20} \times 100 = 75$
12. $\frac{11}{20} \times 100 = 55$	12. $\frac{15}{20} \times 100 = 75$
13. $\frac{15}{20} \times 100 = 75$	13. $\frac{17}{20} \times 100 = 85$
14. $\frac{12}{20} \times 100 = 60$	14. $\frac{15}{20} \times 100 = 75$
15. $\frac{11}{20} \times 100 = 55$	15. $\frac{12}{20} \times 100 = 60$
16. $\frac{12}{20} \times 100 = 60$	16. $\frac{15}{20} \times 100 = 75$
17. $\frac{12}{20} \times 100 = 60$	17. $\frac{14}{20} \times 100 = 70$
18. $\frac{11}{20} \times 100 = 55$	18. $\frac{14}{20} \times 100 = 70$
19. $\frac{11}{20} \times 100 = 55$	19. $\frac{12}{20} \times 100 = 60$

Dased on the result above, the researcher can conclude that students are able to accept teaching learning process by using quantum teaching method. It is completely presented in the form of appendix.

Data analysis description

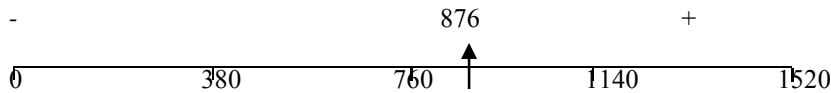
a) Student linguistic intelligence observation

Student linguistic intelligenge improvment is recognize by observation performed during english learning process by applying quantum teaching method. The oboveation is performed by intereseacher which consist of 2 persons, the researcher and english teacher of Karangduwur State Elementary School 2. The assessment is done by giving check list in the prepared instrument.

Based on observation result in initial activity, the highest score of linguistic intelligence in english learning is 1520, while the lowest one is 380. Its median is 950. The linguistic intelligence score in

initial activity is 876. Thus, by likert scale, the position of linguistic intelligence score in english learning is as follows :

Figure 2
The position of student linguistic intelligence in english learning through the application of quantum teaching method in initial activity

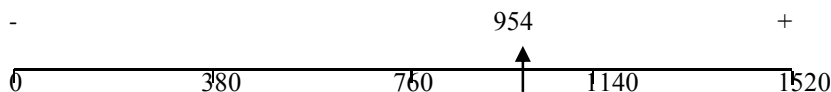


The initial scale above points out that the students linguistic intelligence score in english learning initial score is 876 which is located in position between 760 and 1140. Its average is 46.11, while its percentage is 57.63%. therefore, it can be said that in initial activity, students linguistic intelligence in english learning through the application of quantum teaching method is categorized as low. These percentage will describe as follow:

$$\begin{aligned}
 Dp &= \frac{n}{N} \times 100\% \\
 &= \frac{876}{1520} \times 100\% \\
 &= \frac{87600}{1520} \\
 &= 57.63\%
 \end{aligned}$$

In activity I, highest observation result score of students linguistic intelligence in english learning through the application of quantum teaching method is 1520, while the lowest one is 380. Its median is 950. Linguistic intelligence score in activity I is 954. So that by likert scale, the score position of student linguistic intelligence in english learning is as follows :

Figure 3
The position of students linguistic intelligence in english learning through the application of quantum teaching method in activity I



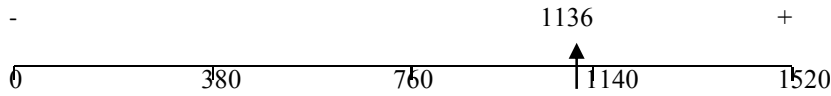
In the likert scale above, it can be seen that students linguistic intelligence in english learning through the application of quantum teaching method is 954. The score is located between 760 and 1140. Its average is 50.21, while its percentage is 62.76%. thus, in general it can be concluded that students linguistic intelligence through the application of quantum teaching method in english learning method in english learning is categorized as low high. In addition, it has also improved. These percentage will be described as follows:

$$\begin{aligned}
 Dp &= \frac{n}{N} \times 100\% \\
 &= \frac{954}{1520} \times 100\% \\
 &= \frac{95400}{1520} \\
 &= 62.76\%
 \end{aligned}$$

The observation result of linguistic intelligence in activity II shows that students linguistic intelligence in english learning through the application of quantum teaching method in activity II increase its score is 1136. So that by likert scale, the score position of students linguistic intelligence in english learning is as follows :

Figure 4

The Position of Student's Linguistic Intelligence in English Learning Through the Application of Quantum Teaching in Activity II



Based on the likert scale above, it can be seen that students linguistic intelligence through application of quantum teaching method is 1136. It is located between 760 and 1140. Its average is 59.79, while its percentage is 74.74%. therefore, it can be said that in activity II, students linguistic intelligence in english learning through the application of quantum method teaching is categorized as high. These percentage will be described as follows :

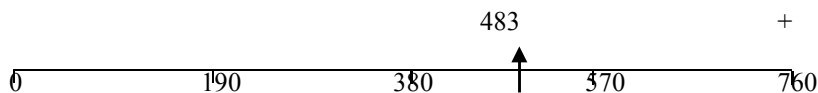
$$\begin{aligned}
 Dp &= \frac{n}{N} \times 100\% \\
 &= \frac{1136}{1520} \times 100\% \\
 &= \frac{113600}{1520} \\
 &= 74.74\%
 \end{aligned}$$

b) Questionnaire of students linguistic intelligence

This question aims to find out the students linguistic intelligence in english learning after joining teaching-learning through the application of quantum teaching method in every activity. It is given in the end of activity I and II.

Based in the questionnaire result in sn activity I, the highset score of linguistic intelligence in english learning is 760, while the lowest one is 190. Its median is 475. The questionnaire linguistic intelligence score in activity I is 483. Thus, by likert scale, the position of questionnaire linguistic intelligence score in english learning is as follows :

Figure 5. The position of Questionnaire Student's Linguistic Intelligence in English Learning Through the Application of Quantum Teaching Method in Activity I



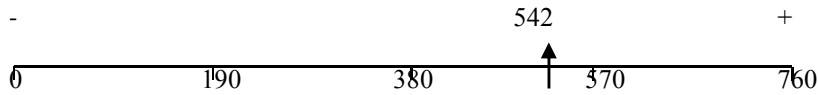
In the likert scale above, it can be seen the questionnaire student linguistic intelligence in english learning through the application of quantum teaching method is 483. The score is located between 380 and 570. Its average is 25.42, while its percentage is 63.55%. thus, in general it can be concluded that questonnaire students linguistic intelligence through the application of quantum teaching method in english learning is categorized as high. In addition, it has also improved. These percentages will be described as folows :

$$\begin{aligned}
 Dp &= \frac{n}{N} \times 100\% \\
 &= \frac{483}{760} \times 100\% \\
 &= \frac{48300}{760} \\
 &= 63.55\%
 \end{aligned}$$

The questionnaire result of linguistic intelligence in activity II shows that students linguistic intelligence in english learning through the application of quantum teaching method in activity which increase its score is 542. So that by likert scale, the score position of questionnaire students linguistic intelligence in english learning is as follows :

Figure 6

The Position of questionnaire Student's Linguistic Intelligence in English Learning Through the Application of Quantum Teaching Method in Activity II



In the likert scale above, it can be seen that questionnaire student linguistic intelligence in english learning through the application of quantum teaching method is 542. The score is located between 380 and 570. Its average is 28.53 while is percentange 71.32% . thus in general it can be conclude that students linguistic intelligence through the application of quantum teaching method in english learning is caterogized as high. These percentange will be described as follows :

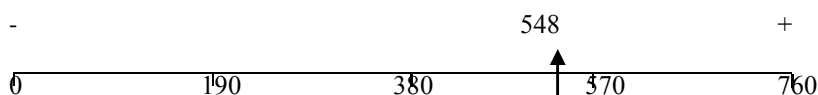
$$\begin{aligned}
 DP &= \frac{n}{N} \times 100\% \\
 &= \frac{542}{760} \times 100\% \\
 &= \frac{54200}{760} \\
 &= 71.32\%
 \end{aligned}$$

- c) Questionnaire of Students perception toward english learning process by using quantum teaching method

This questionnaire strives to find out students perception or respond over english learning through the application of quantum teaching method gets positive response from students that shows the score in english learning as follows :

Figure 7

The Position of Questionnaire student's Perception Toward English Learning Process by Using Quantum Teaching Method



In the likert scale above, it can be seen that questionnaire students attitude intelligence through the application of quantum teaching method is 548. The score is located between 380 and 570. Its average is 28.84 while its percentange is 72.11%. thus, in general it can be concluded that students atittude intelligence through the application of quantum teaching method in english in learning caterogized as better. These percentanges will be described as follows :

$$\begin{aligned}
 DP &= \frac{n}{N} \times 100\% \\
 &= \frac{548}{760} \times 100\% \\
 &= \frac{54800}{760} \\
 &= 72.11\%
 \end{aligned}$$

d) Student's Learning Result

In each activity students learning result increase step by step. Teaching learning process by applying quantum teaching method gives the positive influence for learning result.

Students learning result in initial activity is 60.53. In English learning through the application of quantum teaching method in activity I learning result increase to be 62.84. The last, in activity II learning result is 72.63. It can be seen in appendix.

b. Discussion

Teacher as the key of learning process basic skill needed as an educator and instructor to make a learning condition conducive meaning enables students to be active. English learning in primary school students will be very appreciate to apply quantum teaching method, methods of helping all students to learn more successfully. Hence, it is not only the teachers who are active but also the students. To make students linguistic intelligence increase in English learning, it is needed applying quantum teaching method. It can make the student more interested and own high sense of curiosity towards the materials taught by the teacher in English learning.

In the classroom, the teacher and the students, must be active to make the time effective. The teacher also designs the curriculum and how it is presented. A reproducible lesson planning guide makes it easy to start implementing new strategies immediately. In English learning through the application of quantum teaching method, it can make the teacher have a highly way to teach anything to anybody.

While the researcher teaching English learning through the application of quantum teaching method, she also needs cooperate with the English teacher and especially from the students. So, the researcher is more easy to do this research in Elementary School and gets excellent result.

Applying quantum teaching method, it can accustom the students to ask question actively, to be eager to write simple English vocabularies, to repeat lesson materials learned in English learning class. Applying quantum teaching method, can improve students linguistic intelligence. However, in primary school level the writer has limitation for those who are able to read and write using English. In this sense, the students has linguistic intelligence.

The principle of quantum teaching, "bring their world to ours and take our worlds to their" means that before teachers teach the material, the initial step done to make the students concentrate is giving story telling or singing which can improve their motivation and make more relaxed atmosphere. Thus, the students will be ready to accept the materials well. English learning by applying quantum teaching method will make more relaxed and fun condition.

Based on initial observation, the main problem is identified in this study. Preparing teaching, observation of linguistic intelligence is performed in learning process 2 weeks before. The writer also asks some questions of linguistic intelligence aspects toward the teacher. Before applying action class study in English learning through the application of quantum teaching method, it is found out that students linguistic intelligence level is still low in initial observation. It occurs because the center of learning is the teacher he/himself that causes lack of students participation. The students inactiveness makes them have unskilled sense of curiosity toward the lesson materials. Consequently, students linguistic intelligence is still low. Hence, the average of student linguistic intelligence in initial observation is 46.11. Besides, its percentage is 57.63% while its deviation standard is 6.51. After conducting study of learning English through the applications of quantum teaching method, students linguistic intelligence improves. It can be seen in the average of observation result of activity I and II.

The materials given by teachers in activity by teachers in activity I is "foods" and "drinks". The basic competence that must be attained by the students is that they must understand English written and simple descriptive text in school context. Indicator that must be achieved by students is that they must know a variety of foods and drinks. In this activity, teacher begins to give some songs to make students relaxed. The principle of quantum teaching says that before the teacher doing teaching-learning process, first of all they must make their student enjoyable. It is hoped while teaching-learning process students easy to understand the material. In the next step, the teacher explanation about kinds

of food and drinks in general is continued by giving example of questions. Then, the students must comprehend english writing forms and practice them by reading simple text. They also should go forward the class and write variety of foods and drinks.

In activity I, students in elementary school are poor in writing and reading skill. They are difficult to write simple words correctly. They are more able to speak some simple words because listening something is easier to repeat than writing. So that, the researcher is interested in choosing the ability students in linguistic intelligence. In this case the researcher limits linguistic intelligence only in writing and reading for elementary students. The students also need more attention from the teacher. In general, they will feel happy while the teacher asks to answer questions. The students will also be happy when the teacher gives prizes for them, like as giving applause.

Observation result of students linguistic intelligence in activity I has average and percentage of 50.21 and 62.76% respectively. The result cannot be said as good although there's any improvement. In this activity, some students face difficulty in writing simple words from the blackboard. Moreover, almost whole students possess the same barrier in reading text. Thus, teacher frequently guides each student to spell well. Consequently, the teacher is able to motivate them and make relaxed condition in the class so that it will be easier for them to accept teacher guidance and practice. Having practiced together, the teacher asks the students to go forward and read simple text in front of the class. The teacher also gives appraisal to the students bravely to go forward. They then discuss the simple text writing on the blackboard that makes the students happy in expressing their writing although there are some mistakes they have made. From the observation result of activity I, it can be seen that students linguistic intelligence level varies, i.e. high, medium, low. It can be proven from the students capability in writing and reading simple texts. Thus, the deviation standard is high, 6.07.

The material given in activity II is "games" and "toys". The basic competence that must be attained is spelling and copying quite simple sentences in descriptive text in school context. Indicator must be achieved by the students is that they have to comprehend various games and toys. Learning activity in this activity is not absolutely different from the previous one. The students give good response while the teacher is telling a story. The principle of the initial step done by the teacher is explaining a variety of games and toys in general. Then, the teacher gives some exercises in students work sheet. The teacher also asks them to read simple text and finds out whether or not they are able to read it well.

In activity II, the students can copy simple sentence using their own words. They are also able to spell and read simple text well. The teachers' role in this activity is quite good compared with the previous one. He/she only directs them how to read and write well. In fact, students linguistic intelligence generally has improved. In this activity, class condition looks more relaxed and fun. Students' activeness and curiosity toward the materials is obviously seen. Teacher can see student understanding toward the material learned that showed by student activeness, how they write and read simple english words. Students' activeness and curiosity toward the materials is obviously seen.

The observation result increases in activity II compared in activity I, the researcher is relieved because her material through the application of quantum teaching method can be accepted well by students. The researcher also can get maximum result and its based on the purpose of the research. Its average is 59.79, while its percentage is 74.74%. its deviation standard is low compared in activity I that is, 5.84. the observation result is supported by result of linguistic intelligence questionnaire which reveals students perspective of their own linguistic intelligence.

The questionnaire student linguistic intelligence are distributed in every last moment of each activity. In activity I, the linguistic intelligence questionnaire score is 483, its average is 25.42, and percentage is 63.55%. in activity II the score improves into 542. Furthermore, its average is 28.53, while its percentage is 71.32%. in fact, the result is categorized as high and the deviation standard in activity I and II are 2.60 and 1.60, respectively. English learning through the application of quantum teaching method can improve students linguistic intelligence that make them interested and have more motivation in learning english. Before applying the quantum teaching method, the completeness of students learning performance in initial activity its average of 60.53, then in activity I improve into 61.84. meanwhile, in activity II the result improves more with its average of 72.63.

The questionnaire of students perception toward english learning process by using quantum teaching method also see that questionnaire result in total percentange is 72.11%. it means that english learning by applying quantum teaching method in the fifth years of elementary school gets positive response and depend on level of percentange is categorized the high.

The positive result from this research make the students fun and interested to join englishlearning through the application of quantum teaching method. It cn be seen fro, the questionnaire result of students perception toward english learning through the application of quantum teaching method.

From the description above, it can be found out that the objective of this study can be attained. The students linguistic intelligence in english learning improves throuh the application of quantum teaching method accompanied by the increase of english laerning perfomance.

5. Concluion

The conclusion from the findings of this study and discussion on english learning through the application of quantum teaching method are as follows :

- a. Learning english through the application of quantum teaching method can improve the students linguistic intelligence. It is indicated by the increase of observation result of linguitic intelligence is 46.11, while its percentange is 57.63%. but, having applied the method. Its average becomes 50.21 and its percentange is 62.76% in activity I. Fortunately, the average and percentange in activity II improve into 59,79 and 74.74%, respectively. The improvement of students linguistic intelligence questionnaire which improves in each activity. In activity I, the average of the students linguistic intelligence is 25.42, while in activity II, it improves more into 28,53.
- b. The application of quantum teaching method in english learning can also improve students attractiveness in learning english. It can be seen from th questionnaire of student perception given in the end of activity II that indicates that there is positive response from the students in english learning.
- c. The application of quantum teaching method in english learning cn improve linguistic intelligence as well as learning perfomance shown by the increase of students test result in the end of activity I and II. English learning by applying quantum teaching method can also improve the students attractiveness in english learning.

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